

A NEW SPECIES AND RECONSIDERATIONS IN *AESCHYNOMENE* SERIES
SCOPARIAE (LEGUMINOSAE, PAPILIONOIDEAE) IN MEXICO

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ABSTRACT

Aeschynomene lyonnetii sp. n., from the state of Guerrero, is described; in addition, two collections possibly representing new, undescribed species are noted; *Ae. pringlei* Rose, from the state of Morelos, is reinstated as a good species; *Ae. ormocarpoides* Rudd, in the state of Oaxaca, is recognized as a *Diphysa*; *Ae. vigil* Brandegees, from Baja California Sur, is better placed in series *Pleuronerviae* rather than in series *Scopariae*.

RESUMEN

Se describe *Aeschynomene lyonnetii* sp. n., del estado de Guerrero, taxon afín a *Ae. langlassei* Micheli ex Rudd, *Ae. pringlei* Rose y *Ae. simulans* Rose. Además, se señalan dos colectas (una de Sonora y una de Jalisco) que posiblemente representan especies aún no descritas; se reinstala *Ae. pringlei* Rose, del estado de Morelos, como especie independiente; *Ae. ormocarpoides* Rudd, del estado de Oaxaca, se reconoce como planta perteneciente al género *Diphysa*; *Ae. vigil* Brandegees, de Baja California Sur, queda mejor ubicada en la serie *Pleuronerviae* que en la serie *Scopariae*.

In México several species of shrubby and arborescent *Aeschynomene* in series *Scopariae* have been recognized (Rudd, 1955, 1975). Most have limited geographic distribution, in some cases apparently restricted to small areas. Being woody, many plants have succumbed to harvesting for fuel, others to browsing by animals, and some to the advances of "civilization". Because of the difficult terrain many areas have been little collected by botanists, and new taxa are still being found.

***Aeschynomene lyonnetii* Rudd, sp. nov.**

Frutex virgatus; rami novelli puberuli, glabrescentes aetate provecta. Stipulae subdeltoideae infra insertionem non productae, caducae. Folia fere 10-20-foliolata. Foliola nunc oblonga nunc obovato-oblonga, 2-7 m longa, 1.5-3 mm lata, supra glabra, subtus subglabra, apice rotundato, apiculato, basi rotundata, asymmetrica, costa plus minusve in centro. Inflorescentiae axillares vel pseudoterminales, racemosae nonnumquam paniculatae, pauciflorae ad multiflorae. Flores circa 7 mm longi; calyx campanulatus, circa 3 mm longus, tubo 2 mm longo, 1.5 mm diametro, glabro vel subglabro, lobis subaequalibus, 1 mm longis, puberulentis vel ciliatis. Legumen 1-3-articulatum, moniliforme, articulis suborbiculatis 5-6 mm longis, 5-6 mm latis, subglabris, ciliatis, vel pubescentibus cum pilis adpressis, stipitibus puberulentis, 5-6 mm longis.

Virgate shrub to about 3 m tall; young stems puberulent, glabrescent with age. Stipules subdeltoid, attached at the base, scarious, about 1 mm long, 0.7 mm wide at the base, early caducous. Leaves about 10-20-foliolate, the axis about 1.5-3 cm long. Leaflets alternate, oblong to obovate, 2-7 mm long, 1.5-3 mm wide, glabrous above, subglabrous beneath, rounded at apex, apiculate, the base asymmetrically rounded, the midvein essentially central, the margin entire. Inflorescences axillary or pseudoterminal, racemose, sometimes paniculate, few- to many-flowered; bracts deltoid, attenuate, longitudinally striate, about 5 mm long, 1 mm wide, caducous; bracteoles ovate, obtuse to subacute, longitudinally striate, about 1 mm long and wide, ciliate, otherwise glabrous. Flowers about 7 mm long on pedicels 1 mm long or less, elongated to 2 mm long in fruit; calyx campanulate, about 3 mm long, the tube 2 mm long, 1.5 mm in diameter, glabrous or nearly so, the subequal lobes obtuse except the attenuate vexillar lobe about 1 mm long, puberulent or ciliate; petals (seen dry only) apparently yellowish on keel and wings, the vexillum purplish or reddish, glabrous except puberulent at apex and along upper midvein, reflexed. Fruit 1-3-articulate, moniliform, the articles suborbiculate, 5-6 mm long and wide, subglabrous, ciliate, or sparsely pubescent with appressed hairs, the stipe 5-6 mm long, appressed-puberulent.

TYPE: México, Guerrero, Iguala, 16 septiembre 1937, *E. Lyonnet* 1717 (holotype MEXU no. 278334; isotypes MEXU, US).

Other specimens studied: México, Guerrero, Mpio. Zumpango del Río, "a 7.5 km al S de Mezcala, alt. 860 m s.n.m., selva caducifolia, en el suelo somero derivado de calizas de la formación Morelos", septiembre 1970, *J. L. Contreras* 637 (MEXU); "a 12 km al sur de Mezcala, altitud 565 m s.n.m., selva baja caducifolia con *Mimosa* y *Bursera*, suelo pedregoso, calizo", 6 diciembre 1982, *L. Rico et al.* 449 (MEXU, SFV).

The specimen selected as type bears both flowers and fruit. *Aeschynomene lyonnetii* with its moniliform fruit and suborbiculate articles appears to be related to the other species with more or less similar fruit, i. e., *Ae. langlassei* Micheli ex Rudd, *Ae. pringlei* Rose, and *Ae. simulans* Rose. This is in contrast to other species in the series *Scopariae* with semiorbiculate articles with the upper margin essentially straight and the lower rounded, including *Ae. amorphoides* (S. Wats.) Rose ex Robins., *Ae. hintonii* Sandw., *Ae. nicaraguensis* (Oerst.) Standl., *Ae. palmeri* Rose, *Ae. paucifoliolata* Micheli, *Ae. petraea* Robins. and *Ae. rosei* Morton.

In addition to the species described as new in this paper a collection by *F. W. Pennell*, no. 19700, in the state of Sonora, "herb, ridge south of Arroyo Cochico, east of San Bernardo, oak ridge, alt. 800-1000 m" might represent a distinct taxon. It is a flowering specimen and shows some similarity to *Ae. simulans* Rose from the "low hot coastal plain" of Sinaloa and Nayarit. More material, with fruit, is needed to place it satisfactorily.

Another puzzling collection is that of *R. McVaugh*, no. 23327, from Jalisco, "Mpio. Talpa, ca 22 km S of Talpa de Allende, ca 1450 m". It has been tentatively referred to *Ae. petraea* var. *grandiflora* Rudd but, as noted by McVaugh (1987, p. 269), it is somewhat different from the type and other collections of that taxon.

After reconsideration of *Ae. pringlei* Rose, based on a collection by *C. G. Pringle*, no.

8709, in the state of Morelos, "limestone hills near Jojutla, 3000 ft", earlier placed in synonymy under *Ae. petraea* var. *madrensis* (Micheli) Rudd (Rudd, 1953), it now seems better treated as a separate species. In addition to the type collection another, *Lundell & Lundell 10505*, from Morelos "on mountainside, km 21 of highway, Cañón de Lobos, Yautepec-Cuernavaca Road", is also referable to *Ae. pringlei*. A comparable example of apparent endemism to that area is the recently described *Brongniartia vazquezii* O. Dorado from Morelos (Dorado, 1989).

A species described as new, *Ae. ormocarpoides* Rudd (Rudd, 1975), from the state of Oaxaca, assigned to the section *Scopariae*, must be deleted from the genus and reassigned. It has been recognized by the discerning Mario Sousa S. as a *Diphysa*! It is now determined as *D. spinosa* Rydb., or, possibly, a new, closely related taxon.

Aeschynomene vigil Brandegees, from the Cape region of Baja California Sur, was originally placed in series *Scopariae* where it is somewhat anomalous. Further examination of characters suggests that the relationship is with such species of series *Pleuronerviae* as *Ae. fascicularis* Schlecht. & Cham., *Ae. nivea* Brandegees, and *Ae. compacta* Rose.

LITERATURE CITED

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